Spectra® IV Series
Spectra® IV SE Series
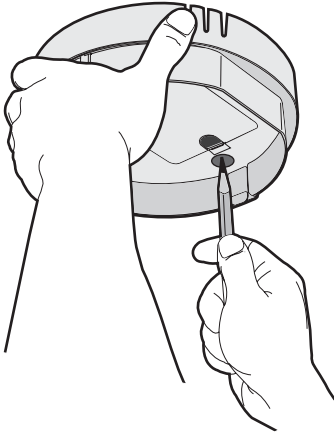

Surface Mount Back Box
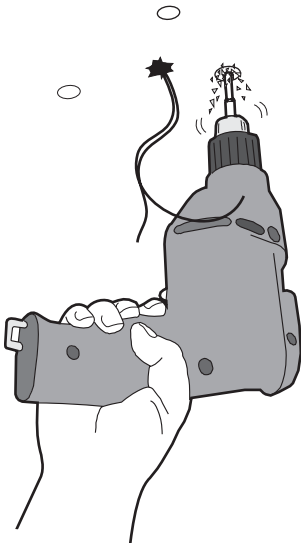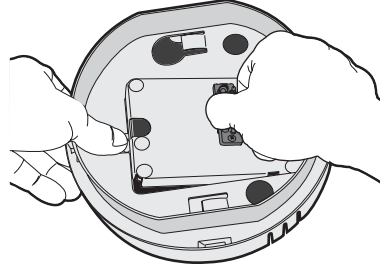
C3416M-B (11/06)

Installation

1

2

3

1. Using the back box as a template, mark the fastener positions on the mounting surface.

2. Prepare the mounting surface. Pull power and video wire/cable for the dome system. Refer to Table A, Table B, and Table C for wiring distances.

3. Open the hinged door to the back box. Push the tab lock towards the wall of the unit and lift the door open. Pull wiring into the back box.

Table A. Video Coaxial Cable Requirements

Cable Type*	Maximum Distance
RG59/U	750 ft (229 m)
RG6/U	1,000 ft (305 m)
RG11/U	1,500 ft (457 m)

*Cable requirements:
 75 ohms impedance
 All-copper center conductor
 All-copper braided shield with 95% braid coverage

Table B. 24 VAC/24VDC Wiring Distances

The following are the recommended maximum distances for 24 VAC and 24 VDC applications and are calculated with a 10 percent voltage drop. (Ten percent is generally the maximum allowable voltage drop for AC- or DC-powered devices.)

AC/DC Total VA/ Total Watts	Wire Gauge			
	20 AWG (0.5 mm²)	18 AWG (1.0 mm²)	16 AWG (1.5 mm²)	14 AWG (2.5 mm²)
23 VA/ 15 watts	123 ft (38 m)	196 ft (60 m)	311 ft (95 m)	495 ft (151 m)

NOTE: Input power for the dome is 24 VAC or 24 VDC. Using 24 VAC input power, power consumption is 23 VA per dome. Using 24 VDC input power, power consumption is 0.7 A (15 watts). Use a 24 VAC transformer with a minimum of 40 VA per dome.

Table C. UTP Wiring Distances

Receiver	Maximum Distance
Active (Video Only)	0-3,000 ft (0-914.4 m)
Passive (Video, Coaxitron, Pelco V-Sync)	0-750 ft (0-228.6 m)

NOTE: As a minimum, UTP requires Cat5, 100-ohm twisted pair cable.

4

5

ALARMS
1
2
3
4
5
6
7
GND
NO
AUX1 COM
NC
AUX2
GND

VIDEO

PWR- GND PWR+ RX- RX+ TX- TX+ UTP+ UTP-
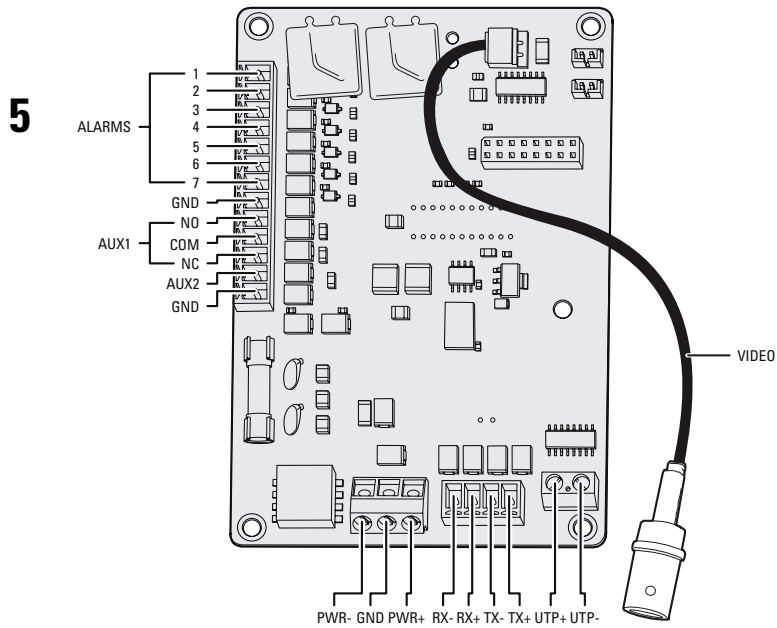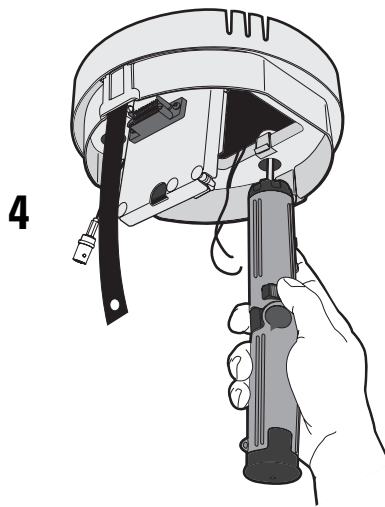
4. Attach the back box to the mounting surface.

⚠ **WARNING:** An electrical short in the back box may occur if the metal BNC connector is not completely covered by the protective boot.

5. Connect wiring to the circuit board inside the back box. When finished, close the door to the back box and turn on the power. The green LED will light.

   NOTES:

   - Aux 1: Maximum 2 A at low voltage (<40 V)

     Aux 2: Maximum 30 mA at 32 VDC

   - If you are using both unshielded twisted pair (UTP) wiring and a translator board, install the UTP wiring before installing the translator board.

6

7

SWITCH 1 AND 2
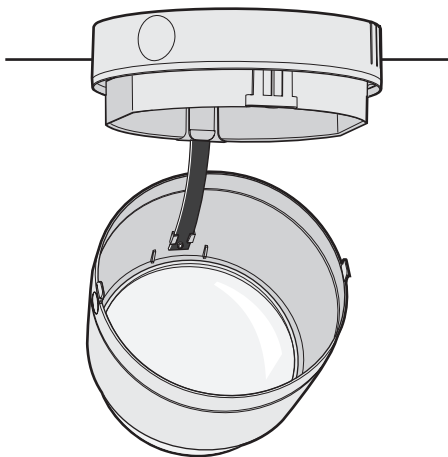
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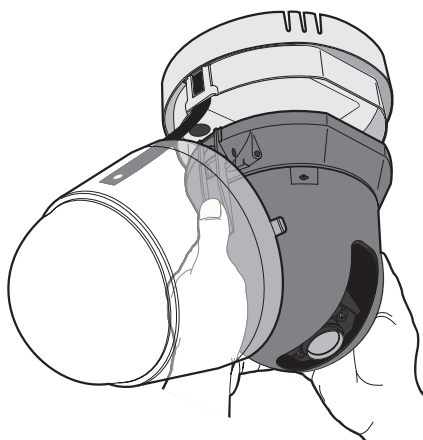
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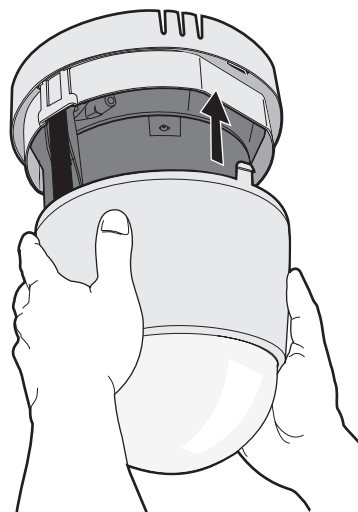
6. Attach the back box leash to the lower dome by sliding the leash through the tab of the lower dome until it snaps into place.

7. Configure DIP switches SW1 and SW2 located on the top of the dome drive. For DIP switch settings, refer to the labels located on the top of the dome drive or to the *Switch Settings* section.

   NOTE: When connecting more than one Spectra® dome to a single controller, terminate the unit farthest from the controller. To terminate the dome drive set the SW2-10 switch to the ON position.
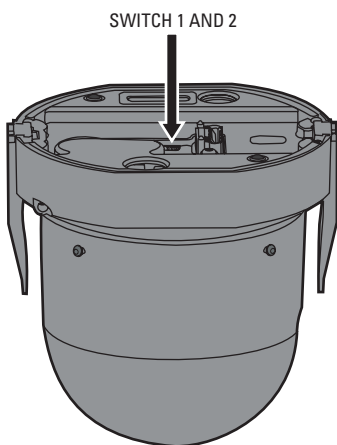
8. Install the dome drive. Refer to Table D for a list of compatible dome drives and back boxes. Line up the blue and red tabs with the blue and red arrows on the hinged door inside the back box. Push in on the tabs. Insert one side and then the other side. Continue pushing on the ends of the tabs until both sides click into place.

Table D. Spectra Dome Drive and Back Box Compatibility

Dome Drive	Back Box		
	Spectra II	Spectra III	Spectra IV
Spectra II®	●		
Spectra III™	●	●	●
Spectra IV	●	●	●

9. Install the lower dome. Align the tabs on the sides of the lower dome with the slots located on the sides of the back box. Snap the lower dome into place.

   To use your dome, refer to the operation and programming manual.

Troubleshooting

If your dome does not power up properly after installation, use the following steps.

1. Check the fuse on the circuit board inside the back box for continuity. Replace the fuse if needed.

2. Check the wiring with a volt meter to ensure proper voltage is being received into the back box.

If your dome powers up correctly, but you do not have accurate control, use the following steps.

1. Check the signal with a volt meter or an oscilloscope.

    NOTE: This step will not apply if you are using Coaxitron control.

2. Ensure that the switch settings on the dome drive are set correctly. Refer to the *Switch Settings* section.

3. If you are using a Pelco controller, ensure that the factory-installed 16-pin jumper has not been removed. If you are using a third-party controller, a TXB Series translator board must be installed. The dome will not function without this 16-pin jumper or a translator board installed.

Switch Settings

⚡ **WARNING:** If you are using D-type or P-type control, your system may not operate if the baud rate and address switches are not set correctly. The switches are set at the factory at the defaults for D-type control (2400 baud and address 1).

Table E. Switch Settings for SW2

Special Systems										
Switch Number	1	2	3	4	5	6	7	8	9	10
AD-32 Preset System	ON									
CM9502 Setting		ON								
Vicon	Not currently available; SW2-3 is reserved for future use.									

Serial Port Settings										
Switch Number	1	2	3	4	5	6	7	8	9	10
RS422				OFF	OFF					
RS485, Four Wire				OFF	ON					
RS485, Two Wire				ON	ON					

D or P Protocol Baud Rate										
Switch Number	1	2	3	4	5	6	7	8	9	10
2400 Baud (Default for D-type Control)						OFF	OFF	OFF		
4800 Baud (Default for P-type Control)						ON	OFF	OFF		
9600 Baud						OFF	ON	OFF		

Video Cable Type										
Switch Number	1	2	3	4	5	6	7	8	9	10
Coax Cable									OFF	
UTP Cable									ON	

Dome Termination										
Switch Number	1	2	3	4	5	6	7	8	9	10
Terminated										ON
Not Terminated										OFF

Table F. Switch Settings for SW1, P-Type Control

NOTE: For Coaxitron controls, SW1 is not used; set all switches OFF. For D-type control systems, refer to Table G.

SPECTRA ADDRESS	SWITCH SETTING					SPECTRA ADDRESS	SWITCH SETTING				
	SW1-1	SW1-2	SW1-3	SW1-4	SW1-5		SW1-1	SW1-2	SW1-3	SW1-4	SW1-5
1	OFF	OFF	OFF	OFF	OFF	17	OFF	OFF	OFF	OFF	ON
2	ON	OFF	OFF	OFF	OFF	18	ON	OFF	OFF	OFF	ON
3	OFF	ON	OFF	OFF	OFF	19	OFF	ON	OFF	OFF	ON
4	ON	ON	OFF	OFF	OFF	20	ON	ON	OFF	OFF	ON
5	OFF	OFF	ON	OFF	OFF	21	OFF	OFF	ON	OFF	ON
6	ON	OFF	ON	OFF	OFF	22	ON	OFF	ON	OFF	ON
7	OFF	ON	ON	OFF	OFF	23	OFF	ON	ON	OFF	ON
8	ON	ON	ON	OFF	OFF	24	ON	ON	ON	OFF	ON
9	OFF	OFF	OFF	ON	OFF	25	OFF	OFF	OFF	ON	ON
10	ON	OFF	OFF	ON	OFF	26	ON	OFF	OFF	ON	ON
11	OFF	ON	OFF	ON	OFF	27	OFF	ON	OFF	ON	ON
12	ON	ON	OFF	ON	OFF	28	ON	ON	OFF	ON	ON
13	OFF	OFF	ON	ON	OFF	29	OFF	OFF	ON	ON	ON
14	ON	OFF	ON	ON	OFF	30	ON	OFF	ON	ON	ON
15	OFF	ON	ON	ON	OFF	31	OFF	ON	ON	ON	ON
16	ON	ON	ON	ON	OFF	32	ON	ON	ON	ON	ON

Table G. Switch Settings for SW1, D-Type Control

NOTE: For Coaxitron controls, SW1 is not used; set all switches OFF. For P-type control systems, refer to Table F.

SPECTRA ADDRESS	SWITCH SETTING								SPECTRA ADDRESS	SWITCH SETTING							
	SW1-1	SW1-2	SW1-3	SW1-4	SW1-5	SW1-6	SW1-7	SW1-8		SW1-1	SW1-2	SW1-3	SW1-4	SW1-5	SW1-6	SW1-7	SW1-8
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF	20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	23	ON	ON	ON	OFF	ON	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF	26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	27	ON	ON	OFF	ON	ON	OFF	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	28	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF	29	ON	OFF	ON	ON	ON	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF	30	OFF	ON	ON	ON	ON	OFF	OFF	OFF

SPECTRA ADDRESS	SWITCH SETTING								SPECTRA ADDRESS	SWITCH SETTING							
	SW1-1	SW1-2	SW1-3	SW1-4	SW1-5	SW1-6	SW1-7	SW1-8		SW1-1	SW1-2	SW1-3	SW1-4	SW1-5	SW1-6	SW1-7	SW1-8
31	ON	ON	ON	ON	ON	OFF	OFF	OFF	71	ON	ON	ON	OFF	OFF	OFF	ON	OFF
32	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	72	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF
33	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	73	ON	OFF	OFF	ON	OFF	OFF	ON	OFF
34	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	74	OFF	ON	OFF	ON	OFF	OFF	ON	OFF
35	ON	ON	OFF	OFF	OFF	ON	OFF	OFF	75	ON	ON	OFF	ON	OFF	OFF	ON	OFF
36	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	76	OFF	OFF	ON	ON	OFF	OFF	ON	OFF
37	ON	OFF	ON	OFF	OFF	ON	OFF	OFF	77	ON	OFF	ON	ON	OFF	OFF	ON	OFF
38	OFF	ON	ON	OFF	OFF	ON	OFF	OFF	78	OFF	ON	ON	ON	OFF	OFF	ON	OFF
39	ON	ON	ON	OFF	OFF	ON	OFF	OFF	79	ON	ON	ON	ON	OFF	OFF	ON	OFF
40	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	80	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF
41	ON	OFF	OFF	ON	OFF	ON	OFF	OFF	81	ON	OFF	OFF	OFF	ON	OFF	ON	OFF
42	OFF	ON	OFF	ON	OFF	ON	OFF	OFF	82	OFF	ON	OFF	OFF	ON	OFF	ON	OFF
43	ON	ON	OFF	ON	OFF	ON	OFF	OFF	83	ON	ON	OFF	OFF	ON	OFF	ON	OFF
44	OFF	OFF	ON	ON	OFF	ON	OFF	OFF	84	OFF	OFF	ON	OFF	ON	OFF	ON	OFF
45	ON	OFF	ON	ON	OFF	ON	OFF	OFF	85	ON	OFF	ON	OFF	ON	OFF	ON	OFF
46	OFF	ON	ON	ON	OFF	ON	OFF	OFF	86	OFF	ON	ON	OFF	ON	OFF	ON	OFF
47	ON	ON	ON	ON	OFF	ON	OFF	OFF	87	ON	ON	ON	OFF	ON	OFF	ON	OFF
48	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	88	OFF	OFF	OFF	ON	ON	OFF	ON	OFF
49	ON	OFF	OFF	OFF	ON	ON	OFF	OFF	89	ON	OFF	OFF	ON	ON	OFF	ON	OFF
50	OFF	ON	OFF	OFF	ON	ON	OFF	OFF	90	OFF	ON	OFF	ON	ON	OFF	ON	OFF
51	ON	ON	OFF	OFF	ON	ON	OFF	OFF	91	ON	ON	OFF	ON	ON	OFF	ON	OFF
52	OFF	OFF	ON	OFF	ON	ON	OFF	OFF	92	OFF	OFF	ON	ON	ON	OFF	ON	OFF
53	ON	OFF	ON	OFF	ON	ON	OFF	OFF	93	ON	OFF	ON	ON	ON	OFF	ON	OFF
54	OFF	ON	ON	OFF	ON	ON	OFF	OFF	94	OFF	ON	ON	ON	ON	OFF	ON	OFF
55	ON	ON	ON	OFF	ON	ON	OFF	OFF	95	ON	ON	ON	ON	ON	OFF	ON	OFF
56	OFF	OFF	OFF	ON	ON	ON	OFF	OFF	96	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF
57	ON	OFF	OFF	ON	ON	ON	OFF	OFF	97	ON	OFF	OFF	OFF	OFF	ON	ON	OFF
58	OFF	ON	OFF	ON	ON	ON	OFF	OFF	98	OFF	ON	OFF	OFF	OFF	ON	ON	OFF
59	ON	ON	OFF	ON	ON	ON	OFF	OFF	99	ON	ON	OFF	OFF	OFF	ON	ON	OFF
60	OFF	OFF	ON	ON	ON	ON	OFF	OFF	100	OFF	OFF	ON	OFF	OFF	ON	ON	OFF
61	ON	OFF	ON	ON	ON	ON	OFF	OFF	101	ON	OFF	ON	OFF	OFF	ON	ON	OFF
62	OFF	ON	ON	ON	ON	ON	OFF	OFF	102	OFF	ON	ON	OFF	OFF	ON	ON	OFF
63	ON	ON	ON	ON	ON	ON	OFF	OFF	103	ON	ON	ON	OFF	OFF	ON	ON	OFF
64	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	104	OFF	OFF	OFF	ON	OFF	ON	ON	OFF
65	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF	105	ON	OFF	OFF	ON	OFF	ON	ON	OFF
66	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	106	OFF	ON	OFF	ON	OFF	ON	ON	OFF
67	ON	ON	OFF	OFF	OFF	OFF	ON	OFF	107	ON	ON	OFF	ON	OFF	ON	ON	OFF
68	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	108	OFF	OFF	ON	ON	OFF	ON	ON	OFF
69	ON	OFF	ON	OFF	OFF	OFF	ON	OFF	109	ON	OFF	ON	ON	OFF	ON	ON	OFF
70	OFF	ON	ON	OFF	OFF	OFF	ON	OFF	110	OFF	ON	ON	ON	OFF	ON	ON	OFF

SPECTRA ADDRESS	SWITCH SETTING							
	SW1-1	SW1-2	SW1-3	SW1-4	SW1-5	SW1-6	SW1-7	SW1-8
111	ON	ON	ON	ON	OFF	ON	ON	OFF
112	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
113	ON	OFF	OFF	OFF	ON	ON	ON	OFF
114	OFF	ON	OFF	OFF	ON	ON	ON	OFF
115	ON	ON	OFF	OFF	ON	ON	ON	OFF
116	OFF	OFF	ON	OFF	ON	ON	ON	OFF
117	ON	OFF	ON	OFF	ON	ON	ON	OFF
118	OFF	ON	ON	OFF	ON	ON	ON	OFF
119	ON	ON	ON	OFF	ON	ON	ON	OFF
120	OFF	OFF	OFF	ON	ON	ON	ON	OFF
121	ON	OFF	OFF	ON	ON	ON	ON	OFF
122	OFF	ON	OFF	ON	ON	ON	ON	OFF
123	ON	ON	OFF	ON	ON	ON	ON	OFF
124	OFF	OFF	ON	ON	ON	ON	ON	OFF
125	ON	OFF	ON	ON	ON	ON	ON	OFF
126	OFF	ON	ON	ON	ON	ON	ON	OFF
127	ON	ON	ON	ON	ON	ON	ON	OFF
128	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON
129	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
130	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON
131	ON	ON	OFF	OFF	OFF	OFF	OFF	ON
132	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON
133	ON	OFF	ON	OFF	OFF	OFF	OFF	ON
134	OFF	ON	ON	OFF	OFF	OFF	OFF	ON
135	ON	ON	ON	OFF	OFF	OFF	OFF	ON
136	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
137	ON	OFF	OFF	ON	OFF	OFF	OFF	ON
138	OFF	ON	OFF	ON	OFF	OFF	OFF	ON
139	ON	ON	OFF	ON	OFF	OFF	OFF	ON
140	OFF	OFF	ON	ON	OFF	OFF	OFF	ON
141	ON	OFF	ON	ON	OFF	OFF	OFF	ON
142	OFF	ON	ON	ON	OFF	OFF	OFF	ON
143	ON	ON	ON	ON	OFF	OFF	OFF	ON
144	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON
145	ON	OFF	OFF	OFF	ON	OFF	OFF	ON
146	OFF	ON	OFF	OFF	ON	OFF	OFF	ON
147	ON	ON	OFF	OFF	ON	OFF	OFF	ON
148	OFF	OFF	ON	OFF	ON	OFF	OFF	ON
149	ON	OFF	ON	OFF	ON	OFF	OFF	ON
150	OFF	ON	ON	OFF	ON	OFF	OFF	ON

SPECTRA ADDRESS	SWITCH SETTING							
	SW1-1	SW1-2	SW1-3	SW1-4	SW1-5	SW1-6	SW1-7	SW1-8
151	ON	ON	ON	OFF	ON	OFF	OFF	ON
152	OFF	OFF	OFF	ON	ON	OFF	OFF	ON
153	ON	OFF	OFF	ON	ON	OFF	OFF	ON
154	OFF	ON	OFF	ON	ON	OFF	OFF	ON
155	ON	ON	OFF	ON	ON	OFF	OFF	ON
156	OFF	OFF	ON	ON	ON	OFF	OFF	ON
157	ON	OFF	ON	ON	ON	OFF	OFF	ON
158	OFF	ON	ON	ON	ON	OFF	OFF	ON
159	ON	ON	ON	ON	ON	OFF	OFF	ON
160	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON
161	ON	OFF	OFF	OFF	OFF	ON	OFF	ON
162	OFF	ON	OFF	OFF	OFF	ON	OFF	ON
163	ON	ON	OFF	OFF	OFF	ON	OFF	ON
164	OFF	OFF	ON	OFF	OFF	ON	OFF	ON
165	ON	OFF	ON	OFF	OFF	ON	OFF	ON
166	OFF	ON	ON	OFF	OFF	ON	OFF	ON
167	ON	ON	ON	OFF	OFF	ON	OFF	ON
168	OFF	OFF	OFF	ON	OFF	ON	OFF	ON
169	ON	OFF	OFF	ON	OFF	ON	OFF	ON
170	OFF	ON	OFF	ON	OFF	ON	OFF	ON
171	ON	ON	OFF	ON	OFF	ON	OFF	ON
172	OFF	OFF	ON	ON	OFF	ON	OFF	ON
173	ON	OFF	ON	ON	OFF	ON	OFF	ON
174	OFF	ON	ON	ON	OFF	ON	OFF	ON
175	ON	ON	ON	ON	OFF	ON	OFF	ON
176	OFF	OFF	OFF	OFF	ON	ON	OFF	ON
177	ON	OFF	OFF	OFF	ON	ON	OFF	ON
178	OFF	ON	OFF	OFF	ON	ON	OFF	ON
179	ON	ON	OFF	OFF	ON	ON	OFF	ON
180	OFF	OFF	ON	OFF	ON	ON	OFF	ON
181	ON	OFF	ON	OFF	ON	ON	OFF	ON
182	OFF	ON	ON	OFF	ON	ON	OFF	ON
183	ON	ON	ON	OFF	ON	ON	OFF	ON
184	OFF	OFF	OFF	ON	ON	ON	OFF	ON
185	ON	OFF	OFF	ON	ON	ON	OFF	ON
186	OFF	ON	OFF	ON	ON	ON	OFF	ON
187	ON	ON	OFF	ON	ON	ON	OFF	ON
188	OFF	OFF	ON	ON	ON	ON	OFF	ON
189	ON	OFF	ON	ON	ON	ON	OFF	ON
190	OFF	ON	ON	ON	ON	ON	OFF	ON

SPECTRA ADDRESS	SWITCH SETTING							
	SW1-1	SW1-2	SW1-3	SW1-4	SW1-5	SW1-6	SW1-7	SW1-8
191	ON	ON	ON	ON	ON	ON	OFF	ON
192	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON
193	ON	OFF	OFF	OFF	OFF	OFF	ON	ON
194	OFF	ON	OFF	OFF	OFF	OFF	ON	ON
195	ON	ON	OFF	OFF	OFF	OFF	ON	ON
196	OFF	OFF	ON	OFF	OFF	OFF	ON	ON
197	ON	OFF	ON	OFF	OFF	OFF	ON	ON
198	OFF	ON	ON	OFF	OFF	OFF	ON	ON
199	ON	ON	ON	OFF	OFF	OFF	ON	ON
200	OFF	OFF	OFF	ON	OFF	OFF	ON	ON
201	ON	OFF	OFF	ON	OFF	OFF	ON	ON
202	OFF	ON	OFF	ON	OFF	OFF	ON	ON
203	ON	ON	OFF	ON	OFF	OFF	ON	ON
204	OFF	OFF	ON	ON	OFF	OFF	ON	ON
205	ON	OFF	ON	ON	OFF	OFF	ON	ON
206	OFF	ON	ON	ON	OFF	OFF	ON	ON
207	ON	ON	ON	ON	OFF	OFF	ON	ON
208	OFF	OFF	OFF	OFF	ON	OFF	ON	ON
209	ON	OFF	OFF	OFF	ON	OFF	ON	ON
210	OFF	ON	OFF	OFF	ON	OFF	ON	ON
211	ON	ON	OFF	OFF	ON	OFF	ON	ON
212	OFF	OFF	ON	OFF	ON	OFF	ON	ON
213	ON	OFF	ON	OFF	ON	OFF	ON	ON
214	OFF	ON	ON	OFF	ON	OFF	ON	ON
215	ON	ON	ON	OFF	ON	OFF	ON	ON
216	OFF	OFF	OFF	ON	ON	OFF	ON	ON
217	ON	OFF	OFF	ON	ON	OFF	ON	ON
218	OFF	ON	OFF	ON	ON	OFF	ON	ON
219	ON	ON	OFF	ON	ON	OFF	ON	ON
220	OFF	OFF	ON	ON	ON	OFF	ON	ON
221	ON	OFF	ON	ON	ON	OFF	ON	ON
222	OFF	ON	ON	ON	ON	OFF	ON	ON

| SPECTRA ADDRESS	SWITCH SETTING							
	SW1-1	SW1-2	SW1-3	SW1-4	SW1-5	SW1-6	SW1-7	SW1-8
223	ON	ON	ON	ON	ON	OFF	ON	ON
224	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
225	ON	OFF	OFF	OFF	OFF	ON	ON	ON
226	OFF	ON	OFF	OFF	OFF	ON	ON	ON
227	ON	ON	OFF	OFF	OFF	ON	ON	ON
228	OFF	OFF	ON	OFF	OFF	ON	ON	ON
229	ON	OFF	ON	OFF	OFF	ON	ON	ON
230	OFF	ON	ON	OFF	OFF	ON	ON	ON
231	ON	ON	ON	OFF	OFF	ON	ON	ON
232	OFF	OFF	OFF	ON	OFF	ON	ON	ON
233	ON	OFF	OFF	ON	OFF	ON	ON	ON
234	OFF	ON	OFF	ON	OFF	ON	ON	ON
235	ON	ON	OFF	ON	OFF	ON	ON	ON
236	OFF	OFF	ON	ON	OFF	ON	ON	ON
237	ON	OFF	ON	ON	OFF	ON	ON	ON
238	OFF	ON	ON	ON	OFF	ON	ON	ON
239	ON	ON	ON	ON	OFF	ON	ON	ON
240	OFF	OFF	OFF	OFF	ON	ON	ON	ON
241	ON	OFF	OFF	OFF	ON	ON	ON	ON
242	OFF	ON	OFF	OFF	ON	ON	ON	ON
243	ON	ON	OFF	OFF	ON	ON	ON	ON
244	OFF	OFF	ON	OFF	ON	ON	ON	ON
245	ON	OFF	ON	OFF	ON	ON	ON	ON
246	OFF	ON	ON	OFF	ON	ON	ON	ON
247	ON	ON	ON	OFF	ON	ON	ON	ON
248	OFF	OFF	OFF	ON	ON	ON	ON	ON
249	ON	OFF	OFF	ON	ON	ON	ON	ON
250	OFF	ON	OFF	ON	ON	ON	ON	ON
251	ON	ON	OFF	ON	ON	ON	ON	ON
252	OFF	OFF	ON	ON	ON	ON	ON	ON
253	ON	OFF	ON	ON	ON	ON	ON	ON
254	OFF	ON	ON	ON	ON	ON	ON	ON

Specifications

GENERAL

Construction
    Back Box   Plastic
    Dome Drive   Aluminum, thermoplastic
    Lower Dome   Acrylic

Cable Entry (Back Box)   0.75-inch conduit fitting

Pan Movement   360° continuous pan rotation

Vertical Tilt   Unobstructed +2° to -92°

Manual Pan/Tilt Speeds*
    Pan   0.1°- 80°/sec manual operation, 150°/sec turbo
    Tilt   0.1°- 40°/sec manual operation

Preset Speeds
    Pan   400°/sec
    Tilt   200°/sec

Environment   Indoor only

Operating Temperature   32° to 122°F (0° to 50°C)

Weight (approximate)
    Back Box   0.7 lb (0.32 kg)
    Dome Drive   3.3 lb (1.48 kg)
    Lower Dome   0.4 lb (0.18 kg)

ELECTRICAL *(Dome Drive Only)*

Input Voltage   18-32 VAC; 24 VAC nominal
                      22-27 VDC; 24 VDC nominal

Input Power
    24 VAC   23 VA nominal (indoor, without heater)
    24 VDC   0.7 A nominal (indoor, without heater)

Fuse   1.25 A

Auxiliary Outputs   2 (Spectra IV SE only)

Alarm Inputs   7 (Spectra IV SE only)

Relay Contacts
	AUX 1	AUX 2 Output
Type	Form C	Open collector transistor output
Voltage	Low voltage (<40 V)	32 VDC maximum
Current	2 A maximum	150 mA maximum

7.6 (19.3)

1.6 (4.0)

8.7 (22.0)

5.9 (15.0)
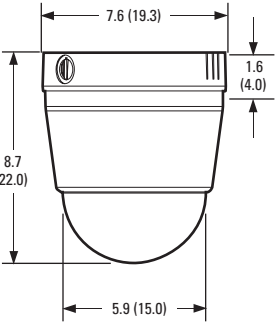
NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

*For variable-speed operation an appropriate controller is required. With fixed-speed controllers, pan/tilt speed is 20°/sec. The CM6700/CM6800 controller with the KBD200A keyboard has programmable fixed speeds.

PRODUCT WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FR/FT/FS Series fiber optic products and TW3000 Series unshielded twisted pair transmission products.
- Three years on Spectra® IV products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Three years on PMCL200/300/400 Series LCD monitors.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra III™, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit and WW5700 Series window wiper (excluding wiper blades).
- Two years (except lamp and color wheel) on Digital Light Processing (DLP®) displays. The lamp and color wheel will be covered for a period of 90 days. The air filter is not covered under warranty.
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800)þ289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:

> Service Department
> Pelco
> 3500 Pelco Way
> Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:

If the goods are to be sent by a COURIER SERVICE, send the goods to:

> Pelco
> 3500 Pelco Way
> Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

> Pelco c/o Expeditors
> 473 Eccles Avenue
> South San Francisco, CA 94080 USA
> Phone: 650-737-1700
> Fax: 650-737-0933

REVISION HISTORY

Manual #	Date	Comments
C3416M	8/06	Original version.
C3416M-A	9/06	Corrected illustration 5. Corrected location of DIP switches in step 7.
C3416M-B	11/06	Inserted compatibility table. Added serial port settings to Table E.

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